Candidate Information

Position:	Research Fellow in Harmonised Cognitive Aging Protocol (HCAP) Study
School/Department:	Centre for Public Health
Reference:	20/108308
Closing Date:	Wednesday 21 October 2020
Salary:	£33,797 - £39,152 per annum
Anticipated Interview Date:	Friday 6 November 2020
Duration:	Until 30 June 2023

Job Purpose

The principal aim of this post is to support the development of the NIA funded Harmonizing Cognitive Assessments in Irish, English, and American Longitudinal Studies: Supporting Cross-National Research on the Epidemiology of Dementia. The primary aim of the project is to carry out the Harmonised Cognitive Aging Protocol (HCAP) Study within the Centre for Public Health. We aim to:

1. Conduct HCAP, including approximately one hour of cognitive testing and an additional twenty minutes of structured interview with a knowledgeable informant, as a separate in-home interview to randomly selected participants aged ≥65 years in NICOLA (approx. n=1,000 after Wave 2). 1,400 TILDA participants will also be assessed by the TILDA HCAP team.

2. Harmonise scoring of the Irish and Northern Irish HCAP data to the HCAP studies conducted in the US (HRS) and England (ELSA), and establish research diagnoses of probable presence or absence of dementia and cognitive impairment in these subsamples of TILDA and NICOLA using algorithms developed in collaboration with HRS and ELSA based on harmonised measures.

3. Construct estimates of dementia prevalence for the national populations of Ireland and Northern Ireland harmonised to estimates for US and England, having first established the representativeness of the national cohorts, and developing population weights to account for non-random participation and institutionalization (care homes).

4. Analyse the relationships between the harmonised HCAP data and the more limited cognitive and functioning measures in the core Irish studies to establish comparable research diagnoses in the full samples to further expand the data available for epidemiologic study, and identify measures that might be added to core studies to improve cognitive assessment going forward.

5. Conduct preliminary analyses to:

a. Investigate potential causal pathways from cardiovascular instability, cerebral microvascular disease and sensory impairment to dementia using objective measures in TILDA and NICOLA health assessments, including neuroimaging, near-infrared spectroscopy, hearing, vision, retinal photography, and multi-sensory integration technologies and using polygenic scores to capture genetic differences

b. Use cross-country analyses to investigate how stress and long-term exposure to conflict in a unique cohort of older adults affects cognitive aging and physiological ageing and methylation/epigenetic patterns in known risk loci related to traumatic stress

c. Establish potentially modifiable risk factors for primary and secondary prevention of dementia

6. Provide data from the Irish and Northern Irish HCAP to the research community to complement existing public data resources from these studies and support epidemiologic research by others.

Main Activities and Responsibilities

1. Work within the programme of work as determined by the Principal Investigator and co-investigators.

2. Liaise closely with TILDA/HRS partners to ensure project is carried out according to agreed timelines.

3. Work within multidisciplinary team to ensure smooth running of project. Provide appropriate leadership for research nurses, PhD students and others as appropriate within the team.

4. Gain training in neuropsychological tests and contribute to fieldwork as required.

5. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.

6. Liaise with data custodians to understand finer details of research datasets.

7. Oversee the creation of appropriate research databases which incorporate adequate safeguards of confidentiality.

8. Prepare, as necessary, submissions to Ethics Committees and other regulatory bodies and data transfer agreements with data custodians such as the NICOLA Data Access Committee.

9. Prepare papers for publication in national and international journals and presentations at national and international conferences.

10. Develop a public engagement strategy related to this project and initiate dialogue with relevant stakeholders and policy makers.

11. Ensure adherence to project milestones and be responsible for regular production of progress reports.

12. Assist the Principal Investigator in the preparation of funding proposals and applications to external bodies.

13. Draft and present regular progress reports on research for the funders and for external 'audiences' in order to disseminate and publicise research findings.

14. Carry out routine administrative tasks associated with the research project to ensure that the work is completed on time. These might include organisation of project meetings and documentation, financial control, risk assessment of activities.

15. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

16. Any other duties related to the successful achievement of the above study.

Planning and Organising

1. Plan for delivery of specific deliverables of the research project's scientific outputs on time.

2. Monitor project progress against planned timelines.

3. Plan for the use of research resources as appropriate.

4. Plan day-to-day activity within framework of the agreed research programme.

5. Plan up to a year in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.

6. Coordinate and liaise with other members of the research group regarding work progress.

Resource Management Responsibilities

1. Ensure research resources are used in an effective and efficient manner.

2.Provide support and guidance as required to staff and students who may be assisting with the research.

Internal and External Relationships

1. Liaise on a regular basis with colleagues and students involved in the project (e.g. local advisory board, steering committee).

2. Maintain existing and establish new internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.

3. Maintain existing and establish new external networks to share information and ideas

4. Contribute to the School's outreach programme by maintaining existing and establishing new links with local community groups and dementia charities.

Essential Criteria

1. Honours Degree minimum of a 2:1 (or equivalent) in a health, social sciences, public health, or statistics related subject.

2. Have or be about to obtain a relevant PhD in epidemiology, social sciences, applied statistics, informatics, or public health related area including pharmacy and economics

3. At least 3 years' recent relevant research experience and skills relevant to this project.

4. Sufficient breadth and depth of specialist knowledge of research methods pertinent to the present research programme.

5. Experience of using statistical packages such as SPSS or STATA.

6. Demonstrable proficiency in academic paper writing.

7. Ability to work in a multi-disciplinary environment as part of a research team.

8. Ability to deal competently with administrative tasks.

9. Knowledge and experience of using relevant statistical techniques, e.g. regression and survival analysis.

10. Excellent IT skills e.g. Microsoft Office suite.

11. Excellent organisational skills.

12. Excellent inter-personal skills.

13. Excellent oral and written communication skills.

14. Ability to write reports and meet deadlines.

15. Clear and confident communicator.

16. Ability to build contacts and participate in internal and external networks.

17. Ability to give formal presentations.

18. Ability to work independently and on own initiative.

19. Ability to act decisively and confidently.

20. Access to transport/ ability to meet the mobility requirements and a willingness to travel to meet the needs of the post.

Desirable Criteria

1. Experience of advanced statistical techniques.

2. Good publication track record commensurate with the stage of career.

3. Experience in use of database software.

4. Experience of data governance and issues related to data linkage.

5. Demonstrable knowledge and experience of research in the area of dementia and cognitive decline.

6. Experience of neuropsychological testing in a normal and/or cognitively impaired population.

7. Evidence of having co-ordinated a research project to successful completion.

8. Strong commitment to a career in research.